

REMARKS

Claims 1-6, 8-13, 15-18 and 20 were rejected under 35 U.S.C. 102(e) as being anticipated by Terry. Applicant respectfully traverses and requests reconsideration.

The present invention, as defined by claims 1, 11 and 17, relates to systems using contention schemes to manage control and use of a transmission medium. A first station contends for control of the medium, is granted access and sends its data. The receiving station sends an acknowledgement frame and appends its data to this frame. By removing some of the need for further contention and access by the receiving station, the time that the channel is not utilized, or is under-utilized, is reduced.

The Examiner has maintained that claims 1, 11 and 17 lack novelty over Terry. Applicant has previously explained to the Examiner that Terry discusses two distinct modes of operation: a contention-free mode (explained with reference to Figs. 2A - 2D); and a contention mode (explained with reference to Fig. 3).

It is clear that a ***combined acknowledgement and data packet*** is described in Terry ONLY for use in the contention-free mode. Thus, there cannot be an anticipation of the claimed invention.

It is also clear that Terry explicitly teaches away from the use of a ***combined acknowledgement and data packet*** in the contention mode (“if the receiving station 54 has a data frame to send, it must contend for a transmit slot as above and cannon piggyback data onto its ACK frame” paragraph 55). Contention mode access in Terry CANNOT use an ACK+Data response. Thus, there is no anticipation of the claimed invention.

The arguments presented by the Examiner to allege anticipation of the independent claims confuses the two distinct embodiments (contention and non-contention or polling) in Terry.

Specifically, the Office Action alleges that step (b) of claim 1 (sending a data packet from a node that gained control of the channel by contention) is described in Terry paragraph 44. However, this paragraph 44 clearly relates to transmission of data by a node that has gained control of the channel by polling (not contention). This point is clear from the explicit wording of this passage (“the PC polls a first station”), the wording of paragraph 42 (where the contention period is described separately) and from Fig. 2A to which the passage of paragraph

44 refers, that shows polling transmissions. The Examiner cannot rely on this polling operation to allege anticipation of claims which are directed to contention access.

Additionally, the Office Action alleges that steps d) and e) of claim 1 (generating an acknowledgement plus data packet and sending that packet) are described in Terry paragraph 47. However, this paragraph 47 clearly relates to same mode of operation as paragraph 44. Specifically, paragraph 47 concerns transmissions made during the contention free mode following polling. This point is clear from the explicit wording of this passage in the context of “CFP” or contention free periods and mentioning of polling for stations, and from Figure 2B which “is similar to FIG. 2A” and illustrates polling transmissions (such as polling frame 46). The Examiner cannot rely on this polling operation to allege anticipation of claims which are directed to contention access.

A similar analysis, flawed for the same reasons, is applied by the Examiner against claims 11 and 17.

In section 4 of the Final Office Action the Examiner provides a response to Applicant’s previous arguments in favor of allowance. However, the Examiner’s response simply repeats a number of passages from Terry without any detailed comment or explanation as to how those teachings reach the claimed invention. The Examiner also fails to respond at all to Applicant’s assertion that Terry explicitly teaches away from the claimed invention (in contention mode, “if the receiving station 54 has a data frame to send, it must contend for a transmit slot as above and cannot piggyback data onto its ACK frame” paragraph 55). It is therefore difficult for Applicant to understand the basis for the Examiner's continued rejection of the claimed invention.

The Examiner asserts that PCF takes priority over DCF to establish a contention free period. See, Final Office Action page 6. Applicant fails to see the pertinence of this technical argument, because it is clear that no matter who takes priority, Terry explicitly states with respect to contention mode that “if the receiving station 54 has a data frame to send, it must contend for a transmit slot as above and cannot piggyback data onto its ACK frame,” see paragraph 55. This is contrary to the claimed invention, and the Examiner has not addressed this contradiction in any way.

Still further, the examples provided by the Examiner on page 7 of the Final Office Action specifically relate to PCF (which is contention free access). These examples are not relevant to the claimed invention which is directed to contention mode. There is no explanation provided

by the Examiner as to how the claim limitation relating to “contention” and the “combined data/acknowledgement” limitation have been met by the polling (contention free) teachings of Terry. In fact, the passages from Terry quoted by the Examiner seem to undermine the rejections, since these passages explicitly refer to Contention Free Periods (CFPs) and not operation in contention mode.

In any event, the priority of PCF is provided in Terry so that contention free periods are available to facilitate the transmission of large volumes of time-sensitive data. In those contention free periods, a piggyback onto an ACK transmission is possible. There is no indication in Terry, however, that contention mode will support a piggyback onto an ACK transmission.

The Examiner has further asserted that the features relied upon by Applicant in distinguishing over Terry are not recited in the claims. Applicant respectfully disagrees and provides the following showing for the Examiner as to how the recited distinction over Terry is claimed. Applicant’s invention is distinct from Terry because Applicant claims the use of a combined acknowledgement and data packet by the second node in a granted contention mode access operation.

Claim 1 recites “(d) generating, at that second node, *a combined data/acknowledgement packet* which contains both an *acknowledgement of receipt of the said first data packet* by the said second node and also a second data packet intended for delivery to the said first node from the said second node.” The limitation d) must be read in the context of what is “said first data packet.” Claim further recites “(b) when control of the medium has been *established by a first node in the network by said contention* in step (a), *transmitting a first data packet from that first node*, which has control of the medium, to a second node in the network.” Thus, when read together, the limitations b) and e) of claim 1 clearly teach that contention access is granted to the first node, the first node transmits a first data packet with granted contention access, and the second node responds with a combined data/acknowledgement packet. This claimed invention is not taught by Terry (which limits ACK+data response to contention free periods only).

Claim 11 recites “*sending a second packet* by the second node over the medium to the first node *during the contention access granted to the first node*, the second packet comprising *a combined data/acknowledgement packet*.” Claim 11 also recites “*contending by a first node for access* to a medium for transmission of a first packet to a second node” and “*granting the*

first node contention access to the medium.” This claim language is clearly and unambiguously limited to sending the combined data/acknowledgement packet within a granted contention access period. As discussed above, this is not anticipated by Terry.

Claim 17 recites “engaging by a first node in a *contention mode access process* with respect to a shared communications medium” and “receiving by the first node of a *granted contention access* to the communications medium.” After contention access is provided and a message is sent, claim 17 further requires “communicating by the second node a second packet over the communications medium over the medium *during the granted contention access*, the second packet comprising a *combined data/acknowledgement packet*.” Again, the claim language is clear that the combined data/acknowledgement packet is sent only within a granted contention access period. Terry not only fails to teach this operation, but specifically teaches away from the claimed invention.

Applicant submits that the application is now in condition for favorable action and allowance.

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